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ABSTRACT

This paper presents a historical overview of the field of bilingual education and vocational education. The extent of the need for bilingual vocational education is described along with the status of current programming. The description of the state of the art includes program design, assessment practices, instructional materials, personnel, and strategies in bilingual vocational instructor training. Exemplary bilingual vocational education programs are reviewed, including those on the federal, state, and local levels, and vocational English-as-a-second-language programs are described. Finally, recommendations are made relative to program development and expansion. Appendixes to the paper list selected sources of bilingual and non-English vocational materials and selected resources in bilingual vocational training. (KC)

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BILINGUAL VOC ED

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1984

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FOREWORD

Bilingual Voc Ed presents a historical overview of the field of bilingual education and vocational education. The extent of the need for bilingual vocational education is described along with the status of current programming. Exemplary bilingual vocational education programs are reviewed, and recommendations are made relative to program development and expansion.

This paper is one of nine papers produced by the National Center Clearinghouse's Information Analysis Program in 1984. It is hoped that the analysis of information on topics of interest to the field of vocational education will contribute to improved programming. Papers in the series should be of interest to all vocational and adult educators, including federal and state agency personnel, teacher educators, researchers, administrators, teachers, and support staff.

The profession is indebted to Dr. Joan Friedenberg and Dr. Curtis Bradley for the scholarship demonstrated in the preparation of this paper. Dr. Friedenberg and Dr. Bradley have published extensively on the topic of bilingual vocational education. Dr. Friedenberg is Associate Professor specializing in bilingual education and English as a second language in the Division of Vocational Education, and Dr. Bradley is Professor of Trade and Industrial Education, Division of Vocational Education, at Florida International University in Miami. Drs. Friedenberg and Bradley are Codirectors of the Bilingual Vocational Instructor Training Program at FIU.

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Executive Director
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in Vocational Education

EXECUTIVE SUMMARY

The provision of vocational education for individuals of all nationalities was recognized in the early days of America's history as a social necessity, and it has long been a basic tenet in the philosophy of this field. Despite this sound philosophical foundation, vocational education is currently being denied to many individuals based on the circumstances of their origin due to their limited English proficiency (LEP). This interpretive paper acquaints professional educators new to the field with an overview of bilingual vocational education. For those individuals who are already familiar with the field, it provides current information about the need for and practices in bilingual vocational education.

Whereas interest in bilingual education appears to be a recent phenomenon, this movement has a long history in this country. Missionaries, churches, and public schools offered bilingual instruction in the colonial era. In the mid-1800s, a number of states enacted legislation either to permit or require the provision of bilingual education.

As the twentieth century approached, however, the flood of immigrants coming to America from all over the world created an economic threat in the form of an oversupply of cheap labor. Legislation was enacted by many states designed to end budding bilingual programs. The hostilities that surrounded the World Wars virtually eliminated bilingual instruction in the United States for several decades.

By the 1960s, many states began ignoring statutes forbidding the use of languages other than English for classroom instruction. The passage of the Civil Rights Act of 1964 (P.L. 88-325) resulted in congressional hearings being held in response to complaints of violations of Title VI of that act. The hearings disclosed the extent of the language and cultural problems faced by students with limited English proficiency (LEP).

The Bilingual Education Act of 1968 (P.L. 90-247) authorized funding for innovative elementary and secondary programs designed to meet the needs of LEP students, along with programs conducted by accredited trade, vocational, and technical schools. The landmark *Lau v. Nicols* decision handed down by the U.S. Supreme Court in 1974 declared that equality of treatment is not afforded merely by providing students with the same facilities, textbooks, teachers, and curriculum.

The social concerns of the sixties influenced the provisions of the Vocational Education Act of 1963 (P.L. 88-210) also, as is apparent in its emphasis on the needs of the individual rather than those of the labor market and of national defense. It was this latter need that impelled Congress to pass the Smith-Hughes Act of 1917 (P.L. 64-347). The Education Amendments of 1976 (P.L. 94-482), under Title II-Vocational Education, authorized funds for bilingual vocational training, instructor training, materials development, and guidance and counseling for LEP students—this in response to the some twenty-eight million persons living in the United States at that time whose native language was other than English. The higher unemployment rate among these individuals produces a correspondingly high rate of dependency on social welfare programs.

Today, successful programs are in operation in many localities. Bilingual vocational training (BVT) models are used in many of these programs. Successful BVT models are comprised of some combination of the following elements:

- Bilingual job-skills instruction
- Simultaneous English-as-a-second-language (ESL) instruction
- ESL instruction that is job related

Some successful approaches that combine these three elements are the concurrent language, bilingual aide, peer tutor, resource center, and bilingual instructional materials approaches. Alternative models to the BVT model include monolingual (English) vocational education (often referred to as the "sink or swim" model), prevocational or vocational ESL (with actual occupational skill training), ESL and on-the-job training, and ESL along with vocational education. The latter model is probably the most effective of the alternative models.

Assessment practices, personnel competencies, instructional materials design, and bilingual vocational instructor training are areas of concern in designing effective bilingual vocational education programs. Some of the exemplary programs in operation are located at the following institutions and agencies:

- China Institute in America—New York
- Houston Community College
- Metro State College—Denver
- California State University—Long Beach
- Florida International University—Miami
- New York University
- Fitchburg State College—Boston
- Hartford Area Training Center
- Hubert H. Humphrey Occupational Resource Center—Boston
- English Center—Miami

An agenda for the eighties in bilingual vocational education should include (1) program development and expansion and (2) personnel development. With efforts in these directions, bilingual vocational education can become an effective means for providing needed vocational training for LEP students. They will then be able successfully to enter the job market where they will not only gain self-satisfaction and an adequate income, but will be able to contribute to America's economic growth as productive citizens. BVE addresses not only the needs of LEP students; it addresses the needs of our nation.

INTRODUCTION

Helping individuals move from economic dependence to productive citizenship has been a major concern of vocational education since its inception. Even before the initiation of federal support for vocational education, it was formally recognized that individuals needing vocational education should not be denied the opportunity based on their national origin. "This was not a debatable issue—it was a social necessity and recognized as a foundation of Vocational Education" (Barlow 1981, p. 23).

However, despite this sound, philosophical foundation, many individuals are currently denied the opportunity for vocational instruction based on the circumstances of their origin (Bear Don't Walk 1976; Rezabek 1981; Valdez 1976). This denial of opportunity is not only wasteful and debilitating to the individual and to society, it is unnecessary. A growing body of knowledge makes it evident that some principles and practices make it possible to meet the needs of these individuals who, because of their origin or language background, are less than proficient in English.

Bilingual vocational education (BVE) is a special approach to vocational education designed to meet the needs of limited-English-proficient (LEP) vocational students. As its name implies, BVE is influenced by the philosophies, concepts, concerns, controversies, and practices of two recognized fields: bilingual education and vocational education. Bilingual education refers to the use of two languages—one of which is English—as media of instruction in a classroom or school program. The major principle underlying bilingual education is that the use of the native language will not only increase the ability of an LEP student to understand instruction, but also contribute to that student's confidence, satisfaction, and self-concept.

There are basically two kinds of bilingual education programs—maintenance and transitional. Maintenance programs are more often used with children when there is a concern for maintaining the children's native language throughout the school program while they are also learning English and learning in English. Since adults do not ordinarily forget their native language, a transitional approach, wherein the native language is gradually replaced with only English, is generally used.

An important component of all bilingual education programs is English as a second language (ESL). ESL refers to English instruction that is specially designed in content and methodology for individuals who speak other languages. ESL is not the same as, or even similar to, English composition, or language arts classes that are taught to native speakers of English.

The second field comprising BVE is vocational education, which refers to the education, training, or retraining that is concerned with the preparation of students in the knowledge, skills, and attitudes necessary for initial employment, updating of existing skills, and for advancement in employment (in most recognized occupations requiring less than a baccalaureate degree for entry). Vocational education programs generally also include guidance and counseling, remedial instruction, job placement, and follow-up.

Bilingual vocational education, then, is a program of occupational education, training, or retraining wherein instruction is provided in two languages, one of which is English. And, as with any bilingual education program, a BVE program should include an ESL component taught by a trained ESL instructor. The ESL component of a BVE program is generally job-related or vocational. Vocational ESL (VESL) is discussed in detail in later chapters. BVE is considered by some writers to be the general name of the field that is comprised of bilingual vocational training (BVT) and bilingual vocational instructor training (BVIT).

The purpose of this interpretive paper is twofold: to provide professional educators who are new to the field with an overview of bilingual vocational education, and to provide those who are already familiar with the field with the most current information about the need for and practices of this unique combination of two fields.

The following chapters present (1) a historical overview of BVE, (2) a discussion of the need for BVE, (3) a comprehensive state-of-the-art picture of current instructional practices in BVE, (4) an overview of VESL, (5) a description of several exemplary BVE programs, and (6) a discussion of the future of BVE. The Appendices provide a wide variety of resources related to BVE.

HISTORICAL OVERVIEW OF BILINGUAL VOCATIONAL EDUCATION

The history of bilingual vocational education is actually a combination of the histories of bilingual education and vocational education. This chapter provides a historical overview of each of these essential components.

History of Bilingual Education

Bilingual education is sometimes perceived as the product of humanistic concerns that evolved during the 1960s. Although it is true that events of the past two decades have brought renewed interest in bilingual education, the use of an individual's native language as a medium of instruction was more common prior to the beginning of the century than is generally known. Therefore, it is most fruitful to consider the history of bilingual education in two stages—the period before 1960 and the period from 1960 to the present.

Stage One: The Period before 1960

The early linguistic history of this country includes records of the multitude of languages used by American Indians and, later, the variety of additional languages brought here by explorers. By the late 1500s, Franciscan and Jesuit missionaries had established bilingual schools in what is now the southwestern United States for the purpose of introducing Christianity, English, and other European languages to the American Indians. Bilingual Lutheran schools were also established in New England and these provided instruction in German and English. As public elementary schools developed, the number of bilingual education programs increased.

During the period from 1820 until after the United States Civil War, bilingual education flourished in many parts of the country in both public and private schools. A number of states, including Pennsylvania, Ohio, New Mexico, Arizona, Wisconsin, Illinois, Iowa, Kentucky, and Minnesota, passed laws either specifically permitting or requiring public bilingual education.

The latter half of the 1800s saw a dramatic increase both in the number and variety of immigrants to the United States. This flood of immigrants created an economic threat, an oversupply of cheap labor, which helped produce strong resentment against these immigrants. As a result, during the late 1880s, both public and private bilingual education programs came under strong attack. A wide variety of legislation enacted in various states was designed to end bilingual education. Suspicions and resentments associated with World War I strengthened the position that instruction only in English was essential to American values and patriotism (Leibowitz 1978).

By the time of World War I and immediately after, many states had passed statutes that restricted the use of language as a medium of instruction to English. Foreign language instruction was eliminated from the early years of schooling in many localities so that foreign languages would not be learned "too well," thus threatening the students' American values and patriotism. In

truth, it could be said that bilingual instruction virtually disappeared from schools in the United States between 1920 and 1963 (Andersson and Boyer 1978).

Stage 2: 1960 to the Present

Although by 1960 many states had passed statutes forbidding the use of any language other than English as a medium of instruction in classrooms, some states began to ignore or repeal these statutes as more and more people became aware of the value of the use of an individual's native language as a medium of instruction. Much of this awareness resulted from (1) the influx of Cubans during the 1960s and (2) a renewed interest in civil rights.

Title VI of the Civil Rights Act of 1964 (P.L. 88-325) prohibits discrimination on the bases of race, color, or national origin. The regulations implementing this act prohibited discrimination in any federally assisted educational program. Complaints of violations of Title VI stimulated congressional hearings. These hearings disclosed the language and cultural problems faced by LEP students attempting unsuccessfully to adjust to monolingual English schools. Testimony provided during these hearings revealed strong public advocacy for federal funding for the creation of bilingual education programs. Consequently, a national policy for providing equal educational opportunity to language minority students was established in 1968 (Molina 1978).

Section 701 of the Bilingual Education Act of 1968 (P.L. 90-247), declared it a policy of the United States to provide financial assistance to local educational agencies to develop and carry out new and innovative elementary and secondary programs to meet the special needs of LEP children. This act specifically included programs conducted by accredited trade, vocational, or technical schools in its authorization of funding to establish bilingual education programs.

As part of its responsibility to implement Title VI of the Civil Rights Act of 1964, the Office of Civil Rights, U.S. Department of Health, Education and Welfare issued the following memorandum on 25 May 1970:

> Where inability to speak and understand the English language excludes national origin minority group children from effective participation in the educational program offered by a school district, the district must take affirmative steps to rectify the language deficiency in order to open its instructional program to these students. (Pottinger 1970, p. 11595)

In March of 1970, a suit filed in the Federal District Court in San Francisco against Alan Nichols, the president of the school board (*Lau v. Nichols* 1974), alleged that Chinese-speaking students were being denied equal rights to an education because they could not understand English—the language used by their teachers and in their textbooks. This suit was ultimately decided by the United States Supreme Court in a unanimous decision of January 1974. The Court declared:

> There is no equality of treatment merely by providing students with the same facilities, textbooks, teachers, and curriculum; for students who do not understand English are effectively foreclosed from any meaningful education. (*Lau v. Nichols* 1974, p. 566)

Based on the *Lau v. Nichols* decision, the Office of Civil Rights set up a task force to develop guidelines for school districts so that they would not be found in violation of the decision. The guidelines, known as "the Lau Remedies," provided detailed suggestions for implementing bilingual education programs.

The remedies were criticized, however, for being too specific and inflexible. Thus, although proposed rules for implementing the guidelines were published in the *Federal Register* in August of 1980, they were withdrawn in February of 1981.

During 1982 and 1983, a series of amendments to the Bilingual Education Act was introduced in Congress. The most significant of these amendments included not requiring school districts that receive federal monies for bilingual education programs to use instructional approaches that utilize the students' native language. Instead, school districts could adopt any procedures that they deemed appropriate for LEP students. Another significant change involved the addition of special monies for bilingual vocational education programs.

Both proposed amendments are being criticized, the first because (1) the value of bilingual instruction has been established to the satisfaction of experts in the field and (2) the Bilingual Education Act specifies the use of bilingual instruction. In addition, even if the bilingual requirement were to be removed and school districts were to rely on the precedent set by the *Lau v. Nichols* decision (i.e., that LEP students must be provided special services appropriate to them), the government has not established any standards for evaluating whether or not a given instructional procedure is appropriate for LEP individuals.

The second proposed amendment is criticized because there is concern that this "new" appropriation is actually meant to divert funds from the BVE appropriation provided by the Vocational Education Act instead of providing new funds (Garcia 1983).

History of Bilingual Vocational Education

Although the Bilingual Education Act mentions trade and vocational schools in its funding authorizations, BVE has actually been influenced more by the history of vocational education.

Vocational Education

The Smith-Hughes Act of 1917 (P.L. 64-347) was the first federal legislation to support vocational education. This act is considered by many vocational educators to be the most important piece of federal legislation related to vocational education because it established the federal-state-local cooperative relationship through which vocational education has grown to be successful. In addition to establishing the need for state plans for vocational education and creating state boards for vocational education (and a multitude of other foundations of vocational education), this permanent legislation created the Federal Board for Vocational Education to supervise the expenditure of funds in accordance with the principles of the Smith-Hughes Act. In its first statement of policy, the Federal Board for Vocational Education made the following declaration:

> The Federal Board desires to emphasize the fact that vocational schools and classes are not fostered under the Smith-Hughes Act for the purpose of giving instruction to the backward, deficient, incorrigible, or otherwise subnormal individuals. (Federal Board 1917, p. 17)

It is important to remember that in 1917 the United States was being drawn into World War I. During that time, resentment against "foreigners" and foreign languages was growing ever more intense. Although the Federal Board's policy statement did not specifically cite LEP students, it seems reasonable to suggest that, given the social and political climate of the period, early vocational education programs were not open to LEP individuals.

Less open to conjecture is the fact that much of the initial federal support for vocational education developed because of World War I.

> It is not wholly accurate to say that the Smith-Hughes Act was passed because of the possibility of war, but it is apparent that congressional leaders saw a close relationship between the vocational education bill and national preparedness. (Barlow 1967, p. 293)

Indeed, after the legislation was passed, the Federal Board for Vocational Education, which it created, focused almost exclusively on national labor needs. Dean (1918) summarizes this notion as follows:

> We must keep in mind that the Federal Board for Vocational Education is in close touch with the National Council of Defense at Washington, and consequently with all departments of the national government which concern war measures. For a local school to jeopardize its chances for national and state aid through failure to follow a program provided by these authorities, or to develop types of work which are out of accord with national needs, will not be the part of wisdom or common sense. (p. 315)

The earliest federal vocational education legislation, then, was designed to prepare people for programs to meet national needs. A wide variety of subsequent legislation continually broadened the national concept of vocational education and the population it was to serve.

The Vocational Education Act of 1963 (P.L. 88-210) is viewed as landmark legislation both because of its emphasis on the needs of the individual (rather than those of the labor market) and because of the broader definition of vocational education that it provides. The 1963 act and its 1968 amendments (P.L. 90-576) are thought of as a philosophical change from a concern for "people for programs" to one of "programs for people."

Title II of the Education Amendments of 1976 (P.L. 94-482) brought new focus to vocational education in the areas of planning, programs, and sex discrimination. This act specifically included funds for bilingual vocational training, in addition to bilingual vocational instructor training, bilingual vocational materials development, and guidance and counseling for individuals with limited English proficiency.

Bilingual Vocational Education

The history of bilingual vocational education is not quite as clear-cut as that of its two separate components. A growing national interest has become evident from both the "bilingual" and the "vocational" educators' points of view. Bilingual educators have taken a greater interest in including vocational training among their programs and priorities, and vocational educators have demonstrated a stronger interest in the needs of LEP students. Federal legislation has served to help strengthen this growing mutual interest.

The need for BVE had been recognized to some extent in several pieces of legislation enacted in the decade prior to 1976. For example, in 1966, the Adult Education Act (P.L. 91-230) specifically included "persons of limited-English-speaking ability" when it authorized grants to states to enable them to expand programs for adults. The Bilingual Education Act (P.L. 94-247) also recognized the need for BVE when it specifically included "programs conducted by accredited trade, vocational, or technical schools" in its authorization of funding.

The Comprehensive Employment and Training Act of 1973 (P.L. 93-203) required prime sponsors to provide persons of limited-English-speaking ability with job skills training, counseling, and placement services in their primary language. The 1974 Vocational Education Amendments (P.L. 93-380) called for increased concern for disadvantaged persons, including those with linguistic and cultural differences. The act provided funds for a limited number of BVT programs.

The critical need for BVE was recognized most notably when Congress found the lack of such training to be one of the most acute problems in the United States. Millions of citizens' efforts to profit from vocational education were found to be severely restricted by their limited-English-speaking ability. The Congress further found that a critical shortage existed of instructors capable of providing adequate instruction to such "language-handicapped" persons. A corresponding shortage of instructional materials and of instructional methods and techniques suitable for such instruction existed (Education Amendments of 1976, Title II, Subpart 3). The Congress acted to attempt to alleviate this acute problem through the Education Amendments of 1976 (P.L. 94-482), Title II, by providing funds and a framework within which states and individual programs can better serve limited-English-proficient individuals.

In 1980, Secretary of Education Hufstedler transferred the administration of BVE programs to the Office of Bilingual Education and Minority Languages Affairs (OBEMLA). Funding levels for the program were $2.8 million annually from 1975 to 1979, $4.8 million in 1980, $3.9 million in 1981, and $3.6 million in 1982 (Gunderson 1983). The legislation has mandated that 65 percent of the appropriation be used for BVT, 25 percent for BVIT, and 10 percent for BVE materials development.

Since the federal program began in 1975, 114 BVT projects have trained 9,927 persons and 22 BVIT projects have trained 798 instructional personnel (Gunderson 1983). It is unclear whether any of the proposed changes in the Bilingual Education Act could affect this particular federal program. Nevertheless, the interested observer recognizes these federally supported bilingual vocational education programs as small but important steps toward alleviating an acute national problem.

Summary

The roots of bilingual vocational education in the United States can be traced to the work of missionaries, churches, and schools in our colonial period. These recognized and met the need to use students' native language(s), while teaching them English and other subjects. Bilingual education flourished and expanded throughout the country until social and economic pressures, created by massive waves of immigrants in the late 1800s, aroused public resentment against "foreigners" and foreign languages. This resentment peaked during the World War I era when many states passed ordinances forbidding instruction in any language other than English.

The Civil Rights Movement of the 1960s forced a realization of the need for bilingual education for limited-English-proficient individuals. Federal legislation, regulations, court decisions, and some enlighted educators responded to that need and bilingual vocational education programs were developed. These BVE programs demonstrated success in helping LEP individuals become productive citizens and learn English (Gunderson 1983). Despite the success of these BVE programs, there still appears to be resistance to BVE in some communities because of misconceptions about it. The following chapter describes the critical national need for BVE.

THE NEED FOR BILINGUAL VOCATIONAL EDUCATION

This chapter discusses the need for bilingual vocational education in terms of the national need and in terms of the individual needs and problems of LEP vocational students.

The National Need

Nearly 28 million people with a native language other than English were living in the United States in 1977. Persons with Spanish-language background numbered 10.6 million. There were almost 3 million each in the Italian- and German-language groups, and nearly 2 million in the French-language group. There were also nearly 2 million persons whose language backgrounds were Chinese, Filipino, Japanese, Korean, or Vietnamese. Interestingly, two-thirds of these individuals with non-English language backgrounds were born in one of the fifty states, the District of Columbia, or Puerto Rico (Hill, Kroliczak, and Froomkin 1982).

Persons whose native language is other than English or who live in households in which languages other than English are spoken do not necessarily have difficulty communicating in English. However, for many of these persons, the level of their English proficiency may be sufficiently limited to create barriers to education and employment, "thus restricting both their economic potential and the potential contributions they can make to the United States society" (Crandall 1983, p. 2).

It is difficult to determine the exact number of limited-English- proficient (LEP) persons in the United States. According to Siegel,* the U.S. Bureau of the Census does not currently have such data readily available. A study conducted for the National Center for Education Statistics provides the best available data on the estimated number of LEP individuals in the United States projected to the year 2000. Oxford and others (1980) utilized the best available data to make the following demographic projections:

- The nearly twenty-eight million people with a native language other than English living in the United States in 1977 will increase to 39.5 million by the year 2000.
- Considering only children ages five to fourteen, 2.5 million had limited English proficiency in 1977, and that number will increase to 3.4 million in the year 2000.

This study represents the only in-depth information available about numbers of LEP persons by age, state, and language group in the United States at present with projections for the future. However, these estimates are conservative. They do not include complete data on such demographic changes as the Cuban (Mariel) boatlift of 1980, the Indochinese influx of the late 1970s, and undocumented immigration of the last decade. In addition, data for LEPs are only provided for

*Personal correspondence to Dr. Curtis Bradley from Paul M. Siegel, U.S. Bureau of the Census. May 2, 1983.

children aged five to fourteen. Thus, the number of LEP persons living in the United States far exceeds any available official estimation.

Diversity

Limited-English-proficient individuals do not comprise a homogeneous population. They range from those having absolutely no proficiency to those with advanced proficiency in English; from those who are illiterate to those highly educated in their native language(s); from unskilled and inexperienced workers to highly skilled workers; from newly arrived immigrants and refugees to United States-born, longtime citizens or residents; from youth to adults. They also come from diverse cultural backgrounds. However, all LEP individuals, irrespective of their individual differences, face similar problems in gaining access to and succeeding in educational programs and jobs (Rezabek 1981).

The LEP adolescent is more likely than the national average to be enrolled below the expected grade level or to have dropped out of school. Hispanic adults have completed fewer years of schooling than either whites or blacks in the United States (National Commission for Employment Policy 1982). The LEP adult is more likely to be functionally illiterate than the national average (Dearman and Plisko 1981). "LEP persons face difficulty in seeking, keeping, and advancing in jobs. They face language, cultural, and educational barriers at a time when the English-speaking job market requires increasing educational achievement" (Rezabek 1982, p. 9).

It must be borne in mind that this diversity exists within as well as between groups. For example, compared to Mexican Americans and Puerto Ricans, Cuban Americans do well in the labor market. Their rate of participation in the labor market is high, unemployment is low, and personal mean income is also relatively high. Nevertheless, their income is still substantially below that of non-Hispanic whites. However, this information provided by the National Commission for Employment Policy (1982) does not include data on the large number of Mariel refugees, many of whom are jobless.

The point of this discussion is that although data presented as "national averages" might not fit every member of a subpopulation, it has been clearly established that all limited-English-proficient persons face similar problems in gaining access to and succeeding in educational programs and jobs. Of equal concern is the fact that once they have obtained employment, they tend to be further penalized by their inability to speak English (Veltman 1980). Difficulty with English is considered, by far, the most important barrier to job success (National Commission for Employment Policy 1982).

National Concern

The higher unemployment and underemployment of LEPs produce a higher incidence of poverty and greater dependence on social programs than for nonminority persons. "The economic costs of these trends in lost productivity and expenditure of tax dollars are high now and likely to increase. The social and human costs, though less measurable, negatively impact on the individuals involved, as well as on society as a whole" (Rezabek 1981, p. 25).

The United States Congress has identified the barriers to education and employment for LEP persons to be one of the most acute problems in the United States. Section 110 of the Vocational Education Act of 1976 (P.L. 94-482) established four National Priority Programs: Handicapped,

Disadvantaged, Limited-English-Proficiency, and Adult and Postsecondary. It is instructive to note that each year the fewest federal funds and the fewest state and local funds have been expended for the National Priority Programs related to our LEP populations (Osso 1983).

An earlier federal effort, the Comprehensive Employment and Training Act (CETA) of 1973, specifically identified LEPs as a priority for job training and supportive services. More Hispanic individuals participated in CETA training programs than would be expected, based on their proportion of the eligible population nationally. Findings on the outcome of participation in CETA training programs indicate (1) that women were more likely to be trained for, or working in, low-paying jobs and (2) that the subsequent yearly earnings of men who completed CETA training were not improved compared to men who did not participate in CETA training (National Commission for Employment Policy 1982). Thus, although many Hispanic individuals participated in CETA programs, this training did little to improve their economic standing.

In addition, the concern for LEP access to employment has also recently appeared in the journals and conference agendas of the major professional associations related to bilingual education, vocational education, English as a second language, and special needs education. Despite the degree of recognition by both Congress and the professions, only limited progress has been made in putting solutions to these concerns into practice. One major reason for this limited progress may well be that there is still misunderstanding about the need for bilingual special assistance for LEPs.

A Legitimate Need Misunderstood

There are thoughtful individuals who have difficulty accepting the need for BVE based solely on the problems LEPs encounter in gaining access to and succeeding in education and employment. These individuals usually have two very practical questions: "Why do these people need special treatment when earlier generations of immigrants melted into our society without such assistance?" and "Is it worthwhile to provide bilingual special assistance?"

The answer to the first question is complex. First, as has already been pointed out, not all LEP individuals are immigrants. Many Mexican Americans, American Indians, and others are members of families that have been in the United States for many generations. They happen to live in settings where their native languages have, until now, seemed to suffice.

For the sake of this discussion, ignore that sizable portion of our LEP population that is native-born. In addition, ignore the nonwhite immigrant and LEP population because the unique problems these individuals face in becoming assimilated into our culture are rather obvious. Consider only the European immigrants and refugees of today and compare them with their counterparts of past generations. What has changed? The major difference between this generation and earlier generations is to be found in the changes that have taken place in the United States labor market. Technological advances have changed the nature of the United States work force.

Increased efficiency of output per worker hour in goods-producing industries has dramatically reduced the labor force needs of these industries. For example, the number of farm workers has decreased steadily during the past thirty years. The number of hours spent per worker on the farm is only 25 percent of what it was thirty years ago. However, United States farm production has increased by 57 percent during that time (Pauly 1980). Fewer workers are producing more goods in less time in all of our goods-producing industries. The vast majority of United States workers now produce services rather than goods (*Statistical Abstracts* 1982).

The nature of work in the United States has changed. Most jobs today require at least some basic occupational skills that are available only through training. Unskilled labor is less in demand than ever before (Wolfbein 1982). The kinds of jobs where language does not matter are now rarely available. Most jobs today require interaction with other people and, therefore, at least some proficiency in English is a prerequisite. Thus, special treatment (i.e., BVE, which teaches both job skills and job-related English) is essential if an LEP individual is to survive and become a contributing member of our society.

The second question asks, "Is it worthwhile to provide bilingual special assistance?" The answer to this question is less complex. Experience has shown that a bilingual approach does not impede an LEP student's assimilation into the English-speaking world. In fact, Galvan (1981) reports that LEP students learn both English and their vocational skills faster with this approach and can complete vocational training in about the same amount of time as their English-speaking peers. In addition, experience with BVE, thus far, demonstrates that, "on the average, people trained in the BVT programs have paid in taxes, in three years or less, the total cost of their training" (Gunderson 1983, p. 3). Quite clearly, it is worthwhile to provide BVE. Removing individuals from our welfare programs and enabling them to become taxpaying, contributing members of our society is worthwhile from every point of view.

Problems and Needs of Limited-English-Proficient Vocational Students

The discussion of the national need for BVE brought out the point that LEP individuals were more likely than their non-LEP peers to be unemployed, underemployed, illiterate, to have dropped out, or to have skills below their expected grade level. This section will discuss the most common individual problems of LEP vocational students. These problems are linguistic, cultural, and affective.

Linguistic Problems

Language-related problems are the most conspicuous of the special problems of LEP vocational students. Although many such problems are the result of linguistic difficulties, others are actually problems of attitude toward natural language phenomena.

The most obvious problem is being unable to understand their English- speaking instructors, peers, counselors, and school administrators, or their English-written textbooks, training manuals, instruction sheets, and tests. Instructors are often mislead because of students' ability to speak "street English." In spite of their seeming fluency, these students may have difficulty understanding "classroom English."

In situations where the vocational instructor is bilingual, students sometimes speak a variety or dialect of their native language which differs from that of the teacher. These teachers sometimes mistakenly believe that their students are speaking their native language incorrectly and attempt to correct them. In the same way, some bilingual and LEP vocational students habitually "codeswitch"—that is, mix two languages. Teachers sometimes erroneously believe that codeswitching students cannot speak either language appropriately. In other instances, however, students do have vocabulary weaknesses in both languages, particularly in technical vocabulary. Thus, students not only have the obvious problems in understanding English, but they can also receive constant, negative feedback regarding the use of their native language.

Cultural Problems

Culture-related difficulties are less obvious than linguistic problems, yet are significant obstacles to progress. Many LEP students are unaware of important social behavior needed to acquire and maintain employment. For example, teachers note that students from some cultural backgrounds consistently arrive late for class, whereas students from other cultural backgrounds consistently arrive too early. Counselors and potential employers have noted that some LEP individuals inappropriately bring friends and relatives with them to employment interviews. Galvan (1981) relates an amusing, but potentially disastrous incident of Indochinese machine workers who left their machines running and unattended in order to bow to a visitor who had walked in.

At a meeting sponsored by the Center for Applied Linguistics and the U.S. State Department in May of 1983, participants were asked to identify the most common culture-related problems of Indochinese refugees on the job. The participants, who represented business, industry, and refugee assistance agencies, identified the following cultural differences that tend to hurt workers' chances for success with a company:

- Dressing differently from their American co-workers
- Demonstrating a lack of knowledge about sanitary facilities
- Working through breaks
- Interpreting a reprimand as a dismissal
- Cooking "strange" foods in the company kitchen
- Isolating themselves from American workers
- Practicing different hygiene and grooming habits from their American co-workers (which American co-workers found offensive)
- Giving gifts to a supervisor

It is important to note that all participants agreed (1) that such differences did, indeed, lessen workers' chances for success and (2) that workers should be given special cross-cultural training so that they can be more sensitive to and flexible toward cultural differences. Such training would also be beneficial to employers, as well as employees, because refugees have been shown to be desirable employees. Indeed, Latkiewicz (1981) found that employers experienced fewer problems with refugee employees than with nonrefugee employees in terms of punctuality, absences, ability to get along with others, quitting, and depression or anxiety.

Affective Problems

Yawkey and Gomez (1980) state that the least obvious problem of LEP vocational students has to do with self-concept. LEP students are especially vulnerable to developing low self-concepts. These feelings can be reinforced by education (Reyes 1976) and job-related frustrations and the lack of vocational education programs designed to incorporate their special needs.

Among the specific causes for such feelings may be a lack of success in the monolingual (English) classroom and community, difficulty in entering vocational programs that require proficiency in English upon admittance, financial difficulties, family problems, negative attitudes of others, the lack of role models from their ethnic group for them to emulate, and difficulties in securing records that document past work experiences, education, and training.

BILINGUAL VOCATIONAL EDUCATION: THE STATE OF THE ART

This chapter presents an overview of the latest and most successful strategies in bilingual vocational education with regard to program designs, assessment practices, instructional materials, and personnel practices. Included is a description of successful strategies in bilingual vocational instructor training (BVIT).

Program Designs in Bilingual Vocational Training

Experience has shown that although, in practice, a variety of workable BVE program designs are employed, the following three "ingredients" will ensure success:

- **Bilingual job skills instruction**—Vocational instruction that utilizes both English and the students' native language(s)
- **Simultaneous ESL instruction**—ESL instruction that is available to the student while the student is receiving vocational instruction (as opposed to ESL instruction that is only available before the student begins vocational training)
- **ESL instruction that is job related**—ESL instruction that focuses on the vocabulary and grammar used in the vocational classroom and, ultimately, on the job (Galvan 1981)

The BVT Model

The BVT model refers to a program with some form of the three essential characteristics mentioned above. Although there is little room for flexibility with the latter two characteristics (i.e., simultaneous ESL instruction and ESL instruction that is job related), there are a variety of ways to provide bilingual job skills instruction whether or not the vocational instructor is bilingual.

Concurrent language approach. The concurrent language approach requires the vocational instructor to use two or more languages, switching from one to another. Ideally, the vocational instructor switches languages to clarify instruction. If the vocational instructor knows little of the LEP students' native language(s), she or he can still learn to provide positive reinforcement in the other language(s). Although limited, this use of the students' native languages is worthwhile and can be supplemented by bilingual teacher aides or peer tutors.

Bilingual aide approach. In the bilingual aide approach, an English- speaking vocational instructor is assisted by a paid or volunteer paraprofessional or community member who helps to assess the LEP students' native language, translate instructional materials, tutor LEP students individually, and evaluate student progress.

Peer tutor approach. The peer tutor approach is similar to the bilingual aide approach, but the "aide" is another student whose role is limited to clarifying instruction. It should be emphasized that peer tutors do not evaluate other students.

Resource center approach. The resource center approach involves having LEP students leave the vocational classroom and receive tutoring in their native languages in a resource center. Resource centers are typically used when there are too few LEP students in each class to warrant in-class bilingual instruction, or when there are too many different language backgrounds in each class to make bilingual instruction practical. In the latter case, all of the native language tutors are available at one common resource center.

Bilingual instructional materials approach. The bilingual instructional materials approach is used when there are no bilingual personnel available in the vocational education center. In this case, a consultant, a volunteer from the community, an aide, a colleague, or an experienced student provides written or taped translations of the instructional materials so that LEP students can work independently. It should be kept in mind that both commercially produced and imported bilingual instructional materials are available. (See appendix A for sample resources.)

Alternative Models

Although the BVT model has been found to be the most effective one for LEP students, this model often is not implemented due to financial, political, legal, personnel, or facility limitations. In this case, less desirable designs, such as those described below, are used.

Monolingual (English) vocational education. Monolingual instruction is used in most vocational programs. In this country, of course, the language of instruction is English. These programs provide no special services to LEP students. This type of approach is often referred to as the "sink or swim" approach.

Vocational or prevocational ESL. Vocational or prevocational ESL classes focus on basic survival and employability skills, in addition to the vocabulary and grammar associated with specific occupations. Although these classes are certainly worthwhile, they do not provide the actual occupational skills training needed to acquire gainful employment. In some cases, refugees have been able to acquire unskilled jobs (e.g., car washers, maids, porters, dishwashers) after attending a prevocational and/or vocational ESL program.

ESL along with regular vocational education. The provision of ESL instruction in the regular vocational education classroom is probably the most effective of the three alternative models. It involves a combination of English-as-a-second-language instruction and regular vocational instruction. The major drawback of this program is that severely limited speakers will often not advance quickly enough in ESL to be able to comprehend adequately the instruction in the vocational class.

The alternative would be to require LEP students to study ESL before beginning vocational training. Although this practice is carried out in many places, including most refugee assistance programs, it is frustrating for students who desperately seek an occupation to have to wait many months while mastering survival English before even being permitted to begin vocational training. In addition, experience has shown that ESL is learned more efficiently when it is job related and provided along with vocational instruction (Galvan 1981). Besides being frustrating for students, the practice of requiring competence in English before a student can enter a vocational education program is legally questionable.

ESL and on-the-job training. The provision of ESL along with on-the-job training is becoming increasingly popular as immediate needs for work increase and funds for vocational education programs decrease. In this situation, students receive ESL instruction and on-the-job vocational instruction. This strategy is most effective when the ESL instruction is job related (i.e., VESL), when the ESL instruction takes place on the job site, when the on-the-job training is bilingual, and when a significant number of demonstrations are presented.

Strategies for a Successful Program

In addition to the use of an appropriate program design, the use of other strategies can contribute to the success of BVE programs. Troike, Golub, and Lugo (1981) identify several program features that contribute to success in BVE. These strategies include the following:

- Careful and in-depth planning
- Careful assessment of job market needs of the community and language needs of the prospective trainees
- A full-time bilingual staff committed to the success of the trainees
- Inservice training for staff
- Personal and professional counseling services for trainees
- Cross-cultural training in American culture, especially in employment practices for trainees
- Bilingual vocational instruction closely coordinated with the ESL instruction
- ESL instruction that is job related and closely coordinated with the vocational instruction
- An advisory committee with representation from the minority community, the vocational skills areas, and from other areas of the employment sector
- Follow-up services for trainees who have completed the program and joined the work force

Assessment Practices in Bilingual Vocational Education

Assessment of LEP vocational students requires some unusually interesting considerations. Unlike regular vocational education programs in which students can be given vocational interest, aptitude, and skills tests exclusively in English, in BVE programs students are often tested in English and in their native language. In addition, language testing is also an integral part of the assessment program.

Assessment for LEP vocational students should take place in the following areas and should involve a close collaboration among counselors, vocational instructors, and ESL instructors:

- Vocational interest and aptitude

- Proficiency in English
- Proficiency in the native language
- Proficiency in the vocational skill area
- Achievement in the vocational skill area
- Achievement in English (during the program)
- Achievement in English (after the program)

Vocational Interest and Aptitude

Vocational interest and aptitude tests are generally administered by a vocational counselor before vocational instruction begins. These tests should be available to LEP students in their native language. In many cases, it is sufficient to have existing instruments translated by competent bilingual staff or community members. In some cases, it is also necessary to provide a cultural orientation to employment opportunities in the United States. LEP vocational students who have recently arrived in the United States are often unaware of the types of jobs that exist in this country.

Proficiency in English

English language proficiency should be assessed as soon as an LEP student enrolls in the vocational education program. Ideally, an ESL proficiency test should be administered, scored, and interpreted by a trained ESL teacher. However, in some cases vocational counselors and even instructors are doing an adequate job of testing English language proficiency.

An assessment of English language proficiency serves the following important functions:

- Provides a measure to determine whether the assessment of vocational skills must be in the native language or if it can be in English
- Provides a measure to determine whether and how much vocational instruction in the native language is needed
- Provides a measure to determine placement level in the (V)ESL class
- Provides a baseline measure to be used to document increases in English proficiency (achievement) over the course of the VESL training period

Friedenberg and Bradley (1984b) suggest five important characteristics that an oral English proficiency test for LEP vocational students should possess. These characteristics are as follows:

- The test should not require any reading.
- The test should be appropriate in content for adults.

- The test should elicit the student's ability to comprehend and communicate a message as opposed to assessing formal grammatical correctness.

- The test's content and form should not be geared to ESL students with strong academic backgrounds.

- The test should reflect the kinds of grammatical structures used most frequently in vocational education classes.

A list of ESL assessment instruments that satisfy the five requirements mentioned above appears in appendix B. However, if using one of these instruments is impossible, it is recommended that the student be given an individual oral interview in order to gain an idea about how much English the student can understand and express.

In some cases, it is also desirable to have a measure of how much English the student can read and write. Although reading and writing are generally not stressed in vocational ESL classes, many occupations require enough reading and writing ability in English to warrant an assessment. Although there are some instruments available for assessing reading and writing ability in English, these instruments are often inappropriate for LEP vocational students. In this case, dictation and cloze* procedures are recommended (see Friedenberg and Bradley 1984b).

Proficiency in the Native Language

Assessing proficiency in the native language can be carried out by a bilingual counselor, bilingual vocational instructor, bilingual aide, or by a bilingual ESL teacher and should be done as soon as the student enrolls in the vocational education program. The main purpose of this type of assessment is to determine whether or not bilingual instruction will be effective for the LEP student.

For example, many LEP students cannot read or write in their native language. For these students, then, translating vocational materials into their native language would not be especially helpful. In the same way, very often LEP vocational students have little or no knowledge of the technical vocabulary in their native language. Again, for these students, simply supplying translations of vocational terms in their native language would not be an effective strategy. (See the section on instructional materials for a discussion of alternative strategies.) Few, if any, appropriate assessment instruments exist for this kind of testing, and techniques such as oral interview, dictation, and cloze in the native language are generally adequate substitutes.

Proficiency in the Vocational Skill Area

An assessment of vocational skill level should take place before vocational instruction begins. The most appropriate person to provide this testing would be the vocational instructor; however, in many cases this testing must take place in the student's native language, requiring the nonbilingual vocational instructor to seek translation assistance from a bilingual aide or other staff member. It is very important to make the vocational skills assessment available in the student's native language, as failure to do so may lead to the erroneous conclusion that the student knows nothing about a skill area when the actual problem could be the student's inability to demonstrate that knowledge in English.

*Cloze refers to a test of reading comprehension that involves having the student supply words that have been systematically deleted from the text.

In most cases, it is relatively simple to assess vocational skills in a student's native language since the student simply needs to have oral instructions translated and can then demonstrate his or her ability to carry out the instructions. This is, of course, more complicated with occupations that require the student to engage in much reading, writing, and explaining.

Achievement in the Vocational Skill Area

Helping the student to achieve progress in the vocational skill area is obviously the responsibility of the vocational teacher. Tests of student progress involve periodic checks or quizzes that indicate to the teacher whether or not the student is successfully keeping up with the instruction. In some cases, testing should still be given in the student's native language. However, the vocational instructor must always try to encourage the LEP student to function independently in English, especially with regard to those skills that will require the student to use English on the job.

Achievement in English During the ESL Course

Like the vocational teacher, the ESL instructor must periodically check the progress of students during the course of the program. This assessment is, of course, administered in English alone and is based on the content covered in the VESL course.

Achievement in English After the ESL Course

Postprogram assessment is administered by the ESL instructor after a particular course of study is completed by the student. The main purpose of this testing is to determine the degree of success of the instructional program. Such tests are usually used to evaluate the effectiveness of "experimental" instructional programs. In the case of specially funded programs, posttests are used to determine the degree of success of the program and to make decisions about the continuation of funding.

In a VESL program, the instrument used for posttesting (assessing VESL achievement) should be the same instrument used for the pretests (initial assessment of English language proficiency). If the measure is to be used for research purposes, the testing should be formal and a standardized instrument should be used. However, if only a general picture of program effectiveness is required, informal procedures such as structured oral interviewing may be used.

Instructional Materials

Appropriate instructional materials are essential to the success of any vocational education program. The same is true for a bilingual vocational education program. Galvan (1981) notes that LEP vocational students have a right to instructional materials that they can understand and from which they can benefit. These instructional materials may take many forms, including textbooks, handouts and instruction sheets, and audiovisual aids.

Textbooks

Two kinds of textbooks are used for bilingual vocational training: English and non-English. In order to decide which kind(s) to use, an instructor must have the following information:

- How well can the students understand, speak, read, and write English?
- How well can the students read in their native language?
- How much technical knowledge of the field do the students have?
- How much formal education have the students been exposed to?
- What kind of influence can the students' culture(s) have on their attitudes and approaches to learning?

In most cases, LEP students can benefit from English vocational texts; however, instructors and aides usually find that it is necessary to modify these texts to make them more appropriate for LEP students. Typical kinds of modifications include translating parts of the text (e.g., key points, headings, and terms) into the students' native language, summarizing important terms in simplified English, providing definitions (in English) of important terms, highlighting important parts by underlining them, and bringing all cultural and sex biases in the text to the students' attention.

Sometimes it is desirable to provide LEP students with vocational texts written in their native language. Both advantages and disadvantages result from using non-English vocational materials. Among the advantages are the following:

- Non-English materials can help LEP and bilingual students prepare for exams.
- Non-English materials allow non-English-speaking students to begin vocational training immediately while they are in the process of learning English.
- Non-English materials can contribute to the LEP students' self-concepts by demonstrating that their native language is a valuable medium of instruction.

Following are some of the disadvantages of using non-English vocational materials.

- If materials are imported from other countries, they may not be technologically suitable for the United States.
- If materials are imported, they often will not have an English counterpart or be cross-referenced with an American text.
- If materials are imported, they are sometimes difficult and expensive to order, although some United States distributors are alleviating this problem.
- Many LEP students are unfamiliar with the technical language of their chosen occupation in their native language.
- Some LEP students cannot read their native language.
- LEP students should not rely solely on their native language, especially for the entire course of the vocational program.

Despite these disadvantages, non-English texts can be very helpful to BVE programs, especially when they are used to supplement the regular English text. For a discussion of the evaluation and modification of English and non-English vocational textbooks, see Friedenberg and Bradley (1984a).

Instruction Sheets

Instruction sheets are written teaching aids that are designed to be used individually by students. They are especially useful in multicultural vocational education settings where the students' abilities vary, not only regarding occupational experience and knowledge, but also proficiency in English, including reading ability. Instruction sheets are designed to provide precisely the amount of information that a student needs at a particular time, and to provide that information in a manner appropriate to the reading level of the student. For the LEP student, this means that all or part of a particular instruction sheet might be written in his or her native language.

Common ways that instruction sheets may be modified for LEP students include (1) increasing the number of diagrams and sketches, (2) providing translations for the names of tools and equipment, (3) translating entire procedures, and (4) translating safety precautions. Assignment sheets have been helpful for LEP students who need assistance in deciphering and extracting the most important information from a text. Job sheets and job-plan sheets help LEP students (who often have little labor market experience in the United States) understand and experience the exact kinds of tasks that will be required of them on the job. Information sheets are sometimes used to provide supplemental information, such as reviewing key terms. For an extensive discussion of how instruction sheets can be used and modified for LEP vocational students, see Friedenberg and Bradley (1984a).

Audiovisual Aids

Audiovisual aids are extremely useful for LEP vocational students in that they can help clarify instruction with minimal use of words. Illustrated safety signs help remind LEP students of hazards. Wall charts, posters, and illustrations help clarify the names of tools, equipment, and materials. Slide, filmstrip, and film presentations can demonstrate tasks and procedures even if words are hard to comprehend. Cassettes can be used to provide oral translations of written materials when LEP students cannot read, or when the person doing the translating does not have time to provide written translations. Other audiovisual aids include models and samples. Such aids are particularly useful to LEP students who are new to this country or who have limited experience in the occupational area being presented.

Personnel

The following sections describe the professional roles, educational practices, and competencies of various personnel who work with LEP vocational students, including vocational instructors, instructor aides, counselors and placement specialists, administrators, and ESL teachers.

Vocational Instructors

The vocational instructor in a BVE program is required, like all other vocational instructors, to have (1) occupational experience and skill in the vocational area to be taught and (2) the ability to

teach. Vocational instructors in BVE programs are expected to have additional competencies—proficiency in a language other than English and corresponding cultural sensitivity (Hurwitz 1980).

Although proficiency in a language other than English is cited as one of the expected competencies of a bilingual vocational instructor, it is possible for monolingual (English-speaking) instructors to teach LEP students successfully. These English-speaking instructors are culturally sensitive, caring individuals who have a particular interest in teaching LEP students and who have learned some of the practices and competencies needed by BVE instructors. The BVE instructor is generally proficient enough to read, write, and converse in the students' native language. In all cases, the successful BVE instructor is culturally sensitive and motivated to teach LEP students.

Whether developed through participating in inservice bilingual vocational instructor training programs or through experience, successful BVE instructors implement characteristic kinds of instructional practices. These instructors use the students' native language(s) to clarify instruction. If necessary, they ask a bilingual aide, a community volunteer, a colleague, or a student to translate important parts of lessons, such as major concepts and principles, into the students' native language. An aide might be asked to summarize the lesson in the students' native language.

Successful BVE instructors also communicate carefully in English. They speak clearly, but not too loudly*. They avoid colloquial expressions, and they ask questions in sentences with simple grammatical construction. Although they collaborate with the ESL instructor to support the students' progress in the use of English, these instructors do not place unnecessary importance on formal grammatical correctness in English. Their primary concerns are communication and providing positive reinforcement for LEP students' attempts to use English.

These instructors modify their teaching styles to accommodate the learning styles of their LEP students. They use audiovisual aids and peer tutors extensively. They also use body language that conveys warmth and acceptance to the students. They have a positive attitude about LEP students. They want to teach them and they show it, as demonstrated by the following attitudinal practices:

- Academic standards are not lowered for LEP students. Requirements are the same for LEP students as for all other students. Only the method of communicating those requirements varies.
- Cultural differences are valued and stereotyping is avoided.
- An effort is made to learn at least a little of the students' native language(s).
- An effort is made to learn about the students' home cultures and educational systems.
- Conflicts between school and home cultures are resolved in a positive manner.
- More concern is demonstrated for communicating with students than about students' grammatical perfection or pronunciation. (Bradley and Friedenberg 1982a)

Kirschner Associates (1981) conducted a study to identify and assess the minimum competencies that BVE instructors need to be successful with LEP students. A summary of the findings of that study appears in table 1.

*Speaking loudly is characteristic of individuals who are trying unsuccessfully to communicate with someone who speaks another language.

TABLE 1

MINIMUM COMPETENCIES NEEDED BY BILINGUAL VOCATIONAL INSTRUCTORS

COMPETENCY CATEGORY	COMPETENCY STATEMENTS
PLAN FOR INSTRUCTION	Identify the vocational skills currently required in the specific job Develop performance objectives Develop a course outline Organize the vocational laboratory to stimulate the job environment Develop lesson plans Develop bilingual vocabulary lists of the words most frequently used in the specific job Plan for bilingual job safety instruction Coordinate vocational skill instruction with the ESL instructor
USE INSTRUCTIONAL MATERIALS AND EQUIPMENT	Assess instructional materials in terms of the vocational skills currently required in the specific job Select printed and audiovisual instructional materials for trainees of limited-English-speaking ability Adapt materials used in the specific job for trainees of limited-English-speaking ability
PROVIDE INSTRUCTION	Determine when instruction provided in English is understood Use trainees' native language when instruction in English is not understood Present an explanation Conduct a demonstration of a job skill Guide trainees practice Permit trainees to learn at an individual pace
PREPARE FOR THE EMPLOYMENT OF STUDENTS	Assist trainees in obtaining a job Prepare trainees for working in a specific job environment
MEASURE STUDENT PROGRESS	Prepare instruments/procedures to evaluate performance Determine whether the trainee has the vocational skills required for the specific job Maintain records of trainee progress

SOURCE: Kirschner Associates 1981.

Only one of the fifty states, Massachusetts, has thus far adopted special teacher certification requirements for bilingual vocational instructors. Since certification requirements vary across vocational program areas and across states, it is not possible to make a general statement about bilingual vocational certification except that each instructor must meet the requirements for a particular vocational program area in a particular state.

Instructor Aides

Bilingual instructor aides are a valuable asset to any BVE program. They are essential in programs where the instructor is not bilingual.

Aides are used in a number of ways to strengthen BVE programs. They translate instructional materials, tutor students, introduce and summarize the instructor's presentations in the native language, and perform other duties in accordance with local needs and regulations. It is clearly understood by all participants in successful BVE programs that the use of bilingual aides, like the use of the students' native language, will decrease as the student progresses.

Counselors and Placement Specialists

The counselor and placement specialist (job developer) roles are often combined in BVE programs. This function is one of critical importance to the success of BVE programs and any vocational programs serving LEP students. To be successful, counselors and placement specialists must be bilingual. They must provide information and assistance with a broad variety of personal, cultural, and work-related matters in students' native languages, when necessary. This function in a BVE program must be understood to mean something much broader than the traditional concept (Troike, Golub, and Lugo 1981).

Counselors and placement specialists serving LEP students—

- help assess students' proficiency in English and their native language;
- help determine the students' occupational interests and aptitudes (in their native language, if necessary);
- help students validate their past occupational training and experience;
- conduct special employability skills training sessions (in the native language, if necessary);
- make LEP students aware of the special language, culture, and discrimination problems they may encounter on the job;
- help vocational instructors develop relevant counseling and cultural sensitivity skills;
- recruit community members who have a special interest in employing and otherwise helping LEP students; and
- refer LEP students to appropriate community agencies for legal, personal, financial, immigration, or other kinds of assistance (Bradley and Friedenberg 1982b).

Administrators

BVE programs are found in a variety of settings ranging from traditional institutions to nontraditional organizations (e.g., ethnic or refugee community centers). The responsibilities of administrators vary among these settings. However, BVE program administrators and those in institutions serving LEP students always have major responsibilities for establishing and maintaining contact and support within the language minority groups, as well as overall management and fiscal responsibility.

Although final responsibility for program success lies with the director or principal, most successful programs operate in a democratic manner; that is, staff members tend to approach decision making on a consensus basis. The role of the director is "crucial in promoting a positive and cooperative working environment within the program, while representing (and, if need be, defending) the program and program staff to others" (Troike, Golub, and Lugo 1981, p. 250).

Fully effective administrators in institutions that serve LEP vocational students read and take advantage of inservice opportunities to learn more about BVE and the cultures and languages of their language minority students. Some administrators take special pride in being able to greet all of their LEP students in each of their native languages.

Lopez-Valadez (1979) provides an implementation checklist for administrators planning to develop and implement a BVE program. The checklist is summarized in table 2.

ESL Teachers

The ESL teacher's role is of paramount importance in the training of LEP vocational students. She or he is expected to have received formal training in the theories and methods of teaching English as a second language. Ideally, the ESL teacher should hold a master's degree in TESL.

Unlike other ESL situations, the vocational ESL instructor teaches job-related English. Thus, this very special professional must also have some knowledge of vocational education. VESL instructors must be able and willing to communicate and collaborate with the regular vocational education staff. They must also have expertise in adapting vocational training materials for use in vocational ESL instruction. Like all personnel involved with the education of LEP students, VESL teachers must also possess cultural sensitivity and an appreciation for the special problems and needs of LEP vocational education students.

Kirschner Associates (1981) conducted a study to identify and assess the minimum competencies that VESL instructors need in order to be successful with LEP vocational students. A summary of the findings of that study appears in table 3.

Successful Strategies in Bilingual Vocational Instructor Training

Only a minimum of information about successful strategies in bilingual vocational instructor training has, as yet, found its way into the professional literature. The best and most current source for such information is the collective experience of the leadership of the various bilingual vocational instructor training programs throughout the country.

There appears to be general agreement that certain prerequisite competencies exist related to occupational proficiency, language proficiency, and cultural sensitivity that instructor trainees

TABLE 2

SUMMARY OF BILINGUAL VOCATIONAL EDUCATION IMPLEMENTATION CHECKLIST FOR ADMINISTRATORS

AREA	YES	NO
PHILOSOPHY		
Do local one- and five-year plans for occupational education include goals related to LEPs?	____	____
INSTRUCTIONAL SERVICES		
Has existing curriculum been adapted or new curriculum developed to provide for the special needs of LEPs?	____	____
Have staff been hired, reassigned, or teamed to accommodate for staffing needs for LEPs?	____	____
Do inservice plans provide for staff training in areas related to serving LEPs?	____	____
Have instructional materials been acquired, adapted, or developed for LEPs?	____	____
Does the testing program include special language and cultural considerations?	____	____
Does course scheduling take the special needs of LEPs into consideration?	____	____
SUPPORT SERVICES		
Have guidance and counseling services been modified to meet the needs of LEPs?	____	____
Will other special services be provided (e.g., transportation, child care)?	____	____
FACILITIES AND EQUIPMENT		
Are facilities available for special supplementary services for LEPs?	____	____
Are courses offered in convenient sites?	____	____
Is all needed equipment available?	____	____
RECRUITMENT		
Have special steps been taken to recruit LEPs?	____	____

SOURCE: Adapted from Lopez-Valadez 1979.

TABLE 3

MINIMUM COMPETENCIES REQUIRED OF JOB-RELATED ESL INSTRUCTORS

COMPETENCY CATEGORY	COMPETENCY STATEMENT
PLAN FOR INSTRUCTION	Develop lists of types of sentences most frequently used in the specific job Develop vocabulary lists of the words most frequently used in the specific job Coordinate English-language instruction with the vocational instructor Develop learning activities that simulate the English-language requirements of the specific job Develop activities to teach survival skills
USE INSTRUCTIONAL MATERIALS AND EQUIPMENT	Adapt materials used in the specific job for use by trainees of limited English-speaking ability
PROVIDE INSTRUCTION	Correct a trainee's English only if an error changes the intended meaning of the statement Present the types of sentences in the context of usage on the specific job Present vocabulary in the context of usage on the specific job
MEASURE STUDENT PROGRESS	Prepare instruments/procedures to evaluate performance Determine whether the trainee has the English-language proficiency necessary for the specific job

SOURCE: Kirschner Associates 1981.

must possess prior to acceptance into a BVIT program. Although experiences in the training program will strengthen these competencies, individuals accepted without these prerequisite competencies will not acquire them in the typical short-term program.

Kirschner Associates (1981) published the list of prerequisite competencies shown in table 4. Although the description of specific competencies would vary across programs, successful BVIT programs do have prerequisite competencies as part of their selection criteria. Such universal agreement exists on this point that it is placed first in the following list of characteristics of successful BVIT programs.

- Trainers possess prerequisite competencies in occupational proficiency, language proficiency, and cultural sensitivity.
- Trainers have expertise in vocational education, bilingual education, and ESL.
- Trainers and support staff are culturally sensitive to the trainees.
- Trainers can communicate with trainees in their native language(s).
- Trainers can provide professional, certification, and personal counseling.
- Program staff identifies the actual needs of the community in terms of employing vocational education instructors.
- The program has the commitment and support of an active advisory committee that is comprised of representatives of business and industry, vocational schools, former program graduates, and the language minority groups to be served.
- The training program and courses are developed, based on the proven principles and concepts of BVE.
- Instructor training is available at a time and place that is convenient for the trainees.
- Second language instruction is provided as needed. (This includes ESL or instruction in the minority languages. All of this instruction is particularly designed to be relevant for bilingual vocational instruction.)
- A variety of training activities and teaching methods are used ("hands- on," experiential learning activities, and bilingual training that not only increase learning, but also serve as instructional models for the trainees).
- There is a vocational ESL instructor training component that is closely coordinated with the bilingual vocational instructor training.
- Close coordination and good communication exist between the instructor training institution and the vocational training centers.
- The staff makes active attempts to help the administration in the training institution understand, accept, and support the BVIT program.
- The staff makes active efforts to promote general understanding and support in the vocational training centers for the philosophies and practices of bilingual vocational training.

TABLE 4

PREREQUISITE COMPETENCIES FOR VOCATIONAL INSTRUCTORS IN BILINGUAL VOCATIONAL TRAINING PROGRAMS

COMPETENCY CATEGORY	COMPETENCY LEVEL
LANGUAGE PROFICIENCY	
Trainees' Native Language	Level 3 on the Foreign Service Institute language proficiency rating scale—Minimum Professional
Speaking/Understanding	Able to participate effectively in most formal and informal conversations on practical, social, and professional topics
Reading/Writing	Able to read newspaper items addressed to the general reader, routine correspondence, reports, and technical materials in the special field and to write similar materials
English	Level 4 on the Foreign Service Institute language proficiency rating scale—Full Professional
Speaking/Understanding	Able to use the language fluently and accurately on all levels normally pertinent to professional needs
Reading/Writing	Able to read and write all styles and forms of the language
VOCATIONAL EXPERIENCE	
Formal Education/Degree	None
Certification	Current occupational credential, certificate, or the equivalent, when required by state
Work Experience	At least three years' working experience in the specific occupational area
CULTURAL AWARENESS/ ATTITUDE	Sensitive to students cultural attitudes toward learning Sensitive to students' cultural attitudes toward work Sensitive to students' cultural beliefs about social structures, including family and authority figures Sensitive to the cultural stigma associated with some words Motivated to teach

SOURCE: Adapted from Kirschner Associates 1981.

Juarez and Associates (1983), under a contract from the U.S. Department of Education, is presently conducting a study to determine the successful components, strategies, and techniques of the federally funded projects in bilingual vocational instructor training. The results of this study will help identify more formal guidelines for the successful design and operation of bilingual vocational instructor training programs.

A series of performance-based teacher education modules* focused on the specific professional competencies needed by vocational and technical teachers for working with special needs populations was developed by the National Center for Research in Vocational Education (1982) as part of a project conducted under a contract with the Office of Vocational and Adult Education, U.S. Department of Education. The thirteen modules are based on 380 competencies identified and verified, using DACUM (**D**eveloping **A** **C**urricu**lum**) panels, as essential to vocational-technical teachers in meeting the special needs of all students.

The DACUM panels were composed of vocational instructors and supervisors who possessed expertise in working with specific special needs groups. A panel was convened for each of the following special needs populations:

- Persons enrolled in programs nontraditional for their sex (e.g., the male in home economics)
- Adults requiring retraining (e.g., displaced homemakers, technologically displaced workers)
- Persons with limited English proficiency
- Members of racial/ethnic minority groups
- Urban/rural economically disadvantaged
- Gifted and talented
- Mentally retarded
- Sensory and physically impaired

The competency lists generated by the eight DACUM panels were merged to form a generic list of competencies that are applicable across special needs populations. The modules were then developed, extensively field-tested at secondary and postsecondary institutions, and revised, based on field-tested data.

Each module is a self-contained instructional package that includes (1) information about one of the critical teaching skills needed, (2) opportunities to apply the skill both in training and in actual classroom situation, and (3) a criterion-referenced checklist to assess teacher competency. The modules are self-paced and may be used by teachers individually or in group instruction.

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*See appendix B.

VOCATIONAL ENGLISH-AS-A-SECOND-LANGUAGE PROGRAMS

Vocational English-as-a-second-language (VESL) programs provide LEP vocational students with the English language content and skills necessary to survive in a vocational education classroom and on a job. Unlike general ESL, VESL instruction is characterized by the following:

- De-emphasis on grammar and pronunciation in favor of emphasis on vocabulary
- Vocabulary that is based on vocational content
- Reading and writing necessary for the job only
- De-emphasis on the correction of errors in favor of emphasis on meaningful communication
- Lesson topics based on vocational situations as opposed to grammatical structures
- Coordination with the vocational class, as opposed to being self- contained and isolated from any other instruction

Although it is fairly simple to distinguish between general ESL and VESL, it is more complicated to distinguish between prevocational ESL and VESL, at least for ESL teachers. Many ESL teachers who have little knowledge of vocational education mistake such skills as filling out an employment application, reading want ads, and dressing appropriately for an employment interview as belonging to "Voc-Ed." Although such skills are often included in vocational education instruction, they alone, of course, do not constitute vocational education. As a result of this misunderstanding, many well-intentioned ESL instructors teach employability and survival-skill English and believe that they are teaching VESL. Another common misunderstanding relates to the role of the VESL instructor. Friedenberg and Bradley (1984b) address both of these issues:

> **Although vocational ESL, or VESL, is, technically, job-specific, we have found that most VESL programs carry the dual responsibility of providing prevocational ESL along with vocational ESL instruction. . . . One good argument for including such material is that, technically, any truly effective vocational program also incorporates some prevocational material in its job-skills training. Thus, VESL instruction requires the ESL instructor to teach material that is, in all probability, new, different, and, perhaps, awesome.**
>
> The VESL instructor must also adopt a completely new and different attitude about her or his professional role. VESL instruction, important as it is, serves one purpose: to support and strengthen vocational instruction. (p. iii)

Deriving Vocational English-as-a-Second-Language Lesson Content

Determining the content of a VESL lesson is a five-step process, including the following steps:

- Determining the vocational topic
- Determining the vocabulary
- Determining the grammatical structures
- Determining the language skills
- Determining cultural information

Each of these processes is discussed in the following sections.

Determining the Vocational Topic

Determining the vocational topic simply means that the (V)ESL instructor bases the lesson topic on some vocational concept or skill, which is determined by the vocational instructor(s). Topics may include tasks, task steps, duties, objectives, and so forth.

Determining the Vocabulary

At this point, the (V)ESL instructor analyzes the materials given to her or him by the vocational instructor that relate to the topic(s) identified above. With the help of the vocational instructor(s), the ESL teacher identifies the technical and nontechnical expressions that seem to predominate in these materials. After identifying the expressions, the (V)ESL instructor again consults the vocational instructor in order to confirm that the expressions chosen are, indeed, important.

In a study completed by MacDonald and others (1982), a computer was used to analyze vocational texts in order to determine the expressions used most frequently for a number of selected occupations. As a result of this study and the handbook developed, educators can now also analyze vocational materials in the same way.

Determining the Grammatical Structures

The third step in determining the content of VESL instruction is to identify the grammatical structures that are used most frequently within the vocational topic. The (V)ESL instructor does this by analyzing the vocational materials provided by the vocational instructor. When all of the most frequently used grammatical structures associated with the given topic are identified, the (V)ESL instructor then chooses one or two of the most important to include in the lesson, in addition to attempting to identify grammatical structures that were already covered in order to review them in a new context.

Determining the Language Skills

The next step is to determine which language skills (i.e., listening, speaking, reading, or writing) need to be emphasized with the previously identified vocabulary and grammar. Friedenberg and Bradley (1984b) point out the special challenge of this task:

> Determining the appropriate language skills is not a simple task because a balance has to be sought between teaching the students as many skills as possible without attempting to burden them with that which is unnecessary. (p. 58)

This is especially true of the skills of reading and writing in that, often, too much emphasis is placed on these skills, especially when they are unnecessary in order to achieve the vocational objective. Galvan (1981), amusingly, suggests that this is the right of LEP students "not to read."

Determining Cultural Information

Almost every aspect of vocational training and employment includes behaviors that could differ across cultures. Examples of cultural misunderstandings in the world of work follow.

- Job applicants who bring relatives with them to an employment interview
- Workers who leave dangerous equipment running and unattended in order to bow to a visitor
- A male who refuses to be supervised by a female

The fully effective VESL instructor includes in each lesson important cultural information, as it relates to each vocational topic.

Vocational English-as-a-Second-Language Instructional Strategies

As was mentioned earlier, one of the differences between VESL and general ESL is that the former emphasizes communicating meaningful messages (content), while the latter often focuses on producing grammatically correct statements (form). This emphasis on communicating meaningful messages is also reflected in the instructional strategies of a VESL class. Thus, instead of relying on traditional language-learning activities, such as repeating words and phrases, memorizing dialogues, and supplying correct grammatical endings, VESL activities tend to focus on exercises that help students learn the meaning of vocabulary and that help students learn to communicate. These activities include identifying the names of objects, role-playing, microcounseling, discussions, reporting, and carrying out directions.

EXEMPLARY BILINGUAL VOCATIONAL EDUCATION PROGRAMS

The flexibility of the bilingual vocational training (BVT) model, coupled with the energy and creativity of educators who are genuinely concerned about the special problems and needs of LEP vocational students, has resulted in numerous effective and innovative BVE programs. Many of these programs are federally funded, whereas others are state and locally supported. Because of changes in the economy and in the priorities of government, it is difficult to predict the life span of projects that depend on government funding.

Federal Programs

One of the most successful federally funded BVT projects is located at the China Institute in America in New York City. This program trains LEP Chinese vocational students to become Chinese chefs (i.e., chefs at Chinese restaurants). Training includes vocational instruction in the students' native languages and dialects, restaurant- and cuisine-related ESL instruction, and instruction in American customs and values. The program also includes a field practice component allowing trainees time to practice in various Chinese restaurants. This field component provides trainees with valuable work experience, in addition to contact with prospective employers. China Institute, which has been offering this program since 1975, boasts a placement rate of over 90 percent.

A federally funded BVT project at Houston Community College trains Spanish-speaking students to repair air conditioners and heaters. Metro State College in Denver trains Hispanic, Laotian, and Vietnamese students in health, clerical, hotel, and restaurant fields. Both programs provide vocational training in the students' native languages and in English, along with vocational ESL instruction.

Federally funded bilingual vocational instructor training (BVIT) programs are as diverse in language and occupation as are the BVT programs. At California State University in Long Beach, Spanish-speaking vocational instructors receive university instruction in the principles and practices of BVE. The Los Angeles Unified School District trains Spanish-, Chinese-, and Japanese-speaking instructors of dental care, machine shop, auto mechanics, and clerical skills in BVE.

Florida International University in Miami trains Haitian-, Hispanic-, and English-speaking vocational instructors, counselors, and aides in methods and materials in BVE. Included in this program are cultural and professional development components, a vocational Spanish and Haitian-Creole component, and a special VESL component for ESL teachers in the community who work with vocational students. One of the innovative features of this program is the opportunity for vocational and ESL instructors to learn collaboration techniques within the program, so that they can continue to collaborate once they are back in their work environments.

A federally funded program at New York University trains Spanish-, French-, Greek-, Russian-, and Chinese-speaking instructors of office skills and auto mechanics in both New York and Puerto Rico.

State Programs

State departments of education have funded a range of programs in BVE from as limited an effort as a single statewide conference on BVE to well-staffed BVT and BVIT programs.

The Division of Vocational-Technical Schools of the Connecticut State Department of Education has been providing BVT programs at its regional vocational-technical schools for several years. These programs include trade-related skills taught bilingually, job-specific ESL instruction, life-coping-skills courses, and job placement. These programs, which serve a predominantly Hispanic population, offer training in health occupations, building maintenance, food services, and electronic assembly at six different sites.

At Fitchburg State College in Boston, a state-funded BVIT program prepares Hispanic, Portuguese, Indo-Chinese, and Haitian tradespeople to become instructors of auto body repair, auto mechanics, health occupations, data processing, or cosmetology. This program was the first to offer bilingual vocational teacher certification.

The BVE program at the Northwest Educational Cooperative in Illinois is funded by the state of Illinois to provide statewide inservice training for vocational teachers who are working with LEP vocational students.

The Arizona Department of Education has funded numerous inservice workshops for both vocational and ESL teachers who work with LEP vocational education students, in addition to funding a training program for bilingual vocational teacher aides and a VESL instructional materials development project at Mesa Community College.

Local Efforts

Some vocational training centers are able to provide bilingual vocational training without the assistance of special state or federal funds. Such services are more likely to be provided in urban areas with large numbers of LEP vocational students.

The Hartford Area Training Center in Connecticut provides bilingual training in machine shop and job-related ESL instruction for Spanish-speaking vocational students. This program is sponsored by the Hartford Area Private Industry Council.

In Boston, the Hubert H. Humphrey Occupational Resource Center provides bilingual vocational training in business, construction, data processing, electronics, graphics and media, health, metals fabrication, and power mechanics for LEP students from as many as seventeen different language groups. In addition to a strong bilingual instructional materials development effort, the Humphrey Center provides VESL classes and bilingual aides.

The English Center in Miami provides bilingual vocational training in the areas of business education, power sewing, data and word processing, upholstery, and home economics. The students, most of whom are Spanish-speaking (with some Middle Easterners, Haitians, Europeans, and Indo-Chinese), also receive job-related ESL instruction. This program has been in existence for over twenty years.

Finally, a more recent innovation worth mentioning is the establishment of job-related ESL programs within businesses and industries. Many companies (particularly large hotels, convenience stores, and computer-related industries) who hire LEP workers, provide relevant ESL instruction for these workers, often right on the premises.

AN AGENDA FOR THE EIGHTIES

In this monograph it has been shown that the use of a student's native language(s) as a vehicle of instruction was evident in the earliest period of American history. The effectiveness of bilingual education was never in doubt; its use spread as the country grew. However, in the past one hundred years, backlash reactions to massive waves of immigrants brought resentment against "foreigners" and foreign languages, and brought rejection, even legal prohibition, of bilingual education throughout the United States.

Social, economic, and political pressures of the 1960s brought renewed awareness of the need for and value of bilingual education, including bilingual vocational education. Successful BVE programs in communities across the nation have dramatically demonstrated the wisdom of using the students' native languages while teaching them occupational skills. However, despite the formidable progress and successes in BVE, there is still need for greater understanding of the purpose of BVE, and for development and expansion.

The single most important factor for development and expansion to occur is for more local, state, and federal agencies and more vocational and ESL educators to become aware of, sensitive to, and committed to the special problems and needs of LEP vocational students.

Program Development

Bilingual vocational program development is needed primarily in the areas of instructional materials and personnel. In order for vocational programs to serve the needs of LEP populations adequately, existing instructional materials must be modified and more linguistically and culturally appropriate materials need to be developed. In addition, professionals who serve LEP vocational students, potential students, or former students must learn how to best meet these students' special needs.

Instructional Materials

Few appropriate instructional materials exist for bilingual vocational instruction. Many textbook publishers note that not a large enough market exists to support the translation of instructional materials into other languages. Some of the publishers that have published bilingual instructional materials suggest (1) that too few vocational programs have adopted the BVE concept and (2) that too many dialect variations exist in the other languages for their materials to be useful to all speakers of those languages.

Similarly, whereas publishers have developed many ESL materials for foreign students who are seeking professional training (i.e., engineering, business, architecture) in American universities, they believe the market to be too narrow to make the development of vocational ESL materials profitable. Thus, books focusing on the English of civil engineering are readily available, for example, but those on the English of auto mechanics are not.

Also, few effective assessment instruments for LEP vocational education students are available. Assessment instruments are needed in the following areas:

- Proficiency in oral English
- Literacy in English
- Literacy in the native language
- Occupational interest and aptitude (in the native language, if necessary)
- Occupational knowledge (in the native language, if necessary)

Although progress has been made in the area of assessing oral English proficiency, few appropriate instruments exist in the other areas.

Personnel

Few vocational instructors, aides, counselors, job developers, administrators, state officials, or teacher educators are aware of the special problems and needs of LEP vocational students. Those who are aware of them have had few opportunities to learn how to approach these problems and needs effectively. Sometimes vocational educators who are themselves bilingual need training in how to provide vocational education in a multicultural setting as much as do their English-speaking colleagues.

Much can be accomplished in the coming years to help alleviate this problem. The following strategies can help to mitigate the need for trained personnel:

- Providing inservice training for existing vocational instructors, aides, counselors, job developers, administrators, state officials, and teacher educators in the philosophies and practices of BVE, second language instruction, and cross-cultural awareness and sensitivity
- Requiring at least one course in BVE for those preparing to become vocational educators
- Requiring a minimum level of job-related foreign language proficiency for those preparing to become vocational educators
- Requiring bilingual vocational teacher certification for vocational educators serving multicultural populations

Program Expansion

Coupled with the need for the improvement of existing BVE programs is the need for additional BVE programs. Far too few LEP students have been able to take full advantage of the benefits of vocational training. In order for expansion to occur, more existing vocational training centers must initiate programs and actively recruit LEP students, and more resources must be made available to better serve these students. As greater numbers of LEP students enter vocational education centers, more publishers will make the needed instructional materials available, and more vocational educators will seek the training that will help them best meet the needs of their LEP students.

More funds are needed at all levels to support (1) the training of personnel, (2) the development and acquisition of relevant bilingual vocational and vocational ESL training materials and assessment instruments, (3) the expansion of work-study and cooperative vocational education programs for LEP students, and (4) increased research efforts.

In addition, a broad variety of external resources such as those described by Peterson and Berry (1983) must be identified and tapped if BVE is ever to become a permanent and integral part of our communities.

Conclusion

There are large numbers of limited-English-proficient individuals living in the United States. These individuals include immigrants and refugees, but most include native-born American citizens. It is pointless to ponder the question, "Why can't they speak English?" It is a matter of record that, for a multitude of reasons, they have not mastered the use of English. It is also clear that these LEP individuals will continue to be heavily represented in the ranks of undereducated, unemployed, and underemployed Americans, and the recipients of welfare until they learn enough English and occupational skills to be productive members of the work force.

Suggesting that LEP individuals learn English before attempting to enter vocational education programs is to ignore the long period of time required to master English. Adults, with themselves and sometimes families to support, do not have time to learn English before beginning to learn the vocational skills needed to earn a living. BVE offers them the opportunity to learn job-related English while learning vocational skills, and since the English is totally relevant to the specific vocational needs of each individual, BVE enhances the learning of English. The latter point is of major importance.

Some of the resistance to BVE is a residue of the feeling from past years that there is something almost "un-American" in the use of a foreign language as a vehicle of instruction in a U.S. school. However, when it is understood that the transitional use of their native language diminishes as students' mastery of English increases, the native language can be perceived for what it is—an instructional tool to be used only as needed. Equally important, experience has demonstrated that BVE helps and encourages LEP individuals learn English more rapidly than they would in a conventional ESL course. BVE does not retard assimilation of these individuals into our English-speaking, work-oriented society, but instead, accelerates that process.

The social and human costs of the undereducation, unemployment, and underemployment of the LEP population should, in themselves, provide sufficient reasons to create strong support for BVE. For those individuals who believe that more pragmatic reasons are needed to support BVE, the fact that BVE converts welfare recipients into taxpayers should suffice. Thus, for both humanitarian reasons and enlightened self-interest, BVE deserves more support. That is precisely what is needed.

The needs of limited-English-proficient vocational education students are being recognized by the government, educators, and communities. According to the findings of Troike and others (1981), "Properly implemented, a bilingual approach can be a highly effective means for providing vocational training to limited-English-speaking persons" (p. 8). Once trained, language minority youth and adults can successfully enter the job market. As members of the work force, they not only gain self-satisfaction and an adequate income, they also contribute to their country. BVE, in addressing the needs of LEP vocational students, also addresses the needs of our nation.

APPENDICES

APPENDIX A

SELECTED SOURCES OF BILINGUAL AND NON-ENGLISH VOCATIONAL MATERIALS

Source	Vocational Areas	Language(s)
Bilingual Publications Company 1966 Broadway New York, NY 10023	Air conditioning and refrigeration, auto mechanics, business education, commercial correspondence, electronics, health occupations, home economics, TV and radio repair	Spanish
Brolet Press 18 John Street New York, NY 10038	Electronics	Creole Portuguese Spanish
Chilton Book Company Radnor, PA 19089	Auto mechanics	Spanish
European Book Company 925 Larkin Street San Francisco, CA 94109	Agribusiness, air conditioning and refrigeration, auto mechanics, construction, data processing, electronics, health occupations, sewing, TV and radio repair, vocational teacher education	Spanish
Haffernan's Supply Company 926 Fredericksbury Road Box 5309 San Antonio, TX 78201	Accounting, agribusiness, auto mechanics, commercial correspondence, construction, data processing, drafting, electronics, TV and radio repair	Spanish
Lab Volt Systems P.O. Box 686 Farmingdale, NJ 07727	Electricity and electronics	Multilingual
McGraw Hill 1221 Avenue of Americas New York, NY 10022	Business education, drafting, machine shop, welding	Spanish

APPENDIX A (continued)

SELECTED SOURCES OF BILINGUAL AND NON-ENGLISH VOCATIONAL MATERIALS

Source	Vocational Areas	Language(s)
Milady Publishing Corporation 3839 White Plains Road Bronx, NY 10467	Cosmetology	Spanish
Minerva Book Company 137 West 14th Street New York, NY 10011	Air Conditioning and refrigeration auto mechanics, business education, health occupations, TV and radio repair	Spanish
Quality Book Company 400 Anthony Trail Northbrook, IL 60062	Auto mechanics, construction, electronics, TV and radio repair	Spanish
Richards Rosen Press 29 East 21st STreet New York, NY 10010	Employability skills	Spanish
South-Western Publishing Company Dpto. de Ediciones en Espanol 5101 Madison Road Cincinnati, OH 45227	Business education, health occupations, industrial arts	Spanish
The French & Spanish Book Corporation 619 Fifth Avenue New York, NY 10020	Agriculture, auto repair, business education, carpentry construction, cosmetology, data processing electricity, electronics, graphics arts, health occupations, heating, home economics, hotel and restaurant, photography, printing, real estate, radio and TV repair, refrigeration	French

APPENDIX B

SELECTED RESOURCES IN BILINGUAL VOCATIONAL TRAINING

This appendix provides selected materials for BVT, resources for educators, and oral English assessment instruments.

Bilingual Vocational Training Materials

Division of Career and Continuing Education, Los Angeles Unified School District, Los Angeles, CA, 1981. *Metalworking. A Bilingual Text = Trabajo en Metal Un Texto Bilingue.* (ED 220 568); *Woodworking. A Bilingual Text = Carpinteria Un Texto Bilingue.* (ED 220 569); *Electricity. A Bilingual Text = Electricidad Un Texto Bilingue.* (ED 220 567)

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